

*Docket File*

APR 20 1976

Docket No.: 50-346

R. C. DeYoung, Assistant Director for Light Water Reactors, PM

REVISION TO THE DRAFT SAFETY EVALUATION REPORT - DAVIS BESSE NUCLEAR POWER STATION, UNIT 1

Plant Name: Davis-Besse Nuclear Power Station, Unit 1  
Docket No.: 50-346  
Licensing Stage: OL  
NSSS Supplier: Babcock & Wilcox  
Containment Type: Dry Dual  
Architect Engineer: Bechtel  
Responsible Branch and Project Manager: LWR Branch 4; L. Engle  
Review Status: Incomplete

Enclosed are revisions to the draft Safety Evaluation Report for the Davis-Besse Nuclear Power Station, Unit 1, prepared by the Containment Systems Branch, and enclosed is a request for additional information.

Based on our review of the FSAR as amended (through Amendment 33), we concluded that the following open items of the draft Safety Evaluation Report (issued February 12, 1975) have now been resolved:

1. Bypass leakage paths have been identified in accordance with the guidelines of Branch Technical Position CSB 6-3. The applicant has verbally agreed to eliminate the fuel transfer tube as a potential bypass leak path by demonstrating zero leakage through the fuel transfer tube. This commitment will be included in the Davis-Besse Unit 1 Technical Specifications.
2. We have received mass and energy release data for the postulated design basis loss-of-coolant accident which does not include quenching of the ECCS water. Using these revised release data, we calculated a peak containment pressure of 38.0 psig which confirms the acceptability of the applicant's containment analysis and design pressure of 40.0 psig.

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3. We have received revised mass and energy release data for the subcompartment analysis that adequately describe the blowdown profile over the time scale of interest.

The results of our confirmatory analyses of the reactor cavity and steam generator compartments indicates that the design pressures for these subcompartments are not acceptable based on the following results obtained by our analyses:

	<u>Design Pressure (psia)</u>	<u>CSB Results using conser- vative L/A terms (psia)</u>	<u>CSB Results using L/A terms reduced by factor of ten, psia</u>
Reactor Cavity	225	401	236
Steam Generators Compartment	114	204	113

The applicant should either re-evaluate the structural design capability of the subcompartments or provide revised analyses which show that proposed modifications will reduce the peak pressure within the subcompartments to below design values.

It should be noted that we considered inertial effects in our confirmatory analyses. This entailed using inertia term (L/A, ft<sup>-1</sup>) data from a similar plant (Three Mile Island 2) since we were not successful in getting this information from the applicant (Our efforts are described in the Memorandum to File from D. Pickett, dated February 12, 1976, a copy of which has been forwarded to the LPM). We felt the inertia terms from a similar plant would conservatively describe the Davis-Besse 1 subcompartments. Using these conservative values, we calculated pressures that are significantly greater than the subcompartment design pressures; reducing the inertia terms by a factor of ten results in pressures which confirm the design values. Since there is no sound basis for using these latter inertia terms, we cannot justifiably accept the lower pressures. Therefore, we are requesting the applicant to provide the inertia term data specifically for the Davis-Bessell plant subcompartments.

The enclosed request for additional information does not address the pressure

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R. C. DeYoung

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vessel support issue. This will be handled generically through the Division of Project Management.

Robert L. Tedesco, Assistant Director  
for Plant Systems  
Division of Systems Safety

Enclosure:

Request for Additional Information

- cc: R. Heineman
- S. Hanauer
- R. Boyd
- W. McDonald
- W. Butler
- G. Lainas
- L. Engle
- S. Varga
- J. Shapaker
- J. Kudrick
- D. Pickett
- J. Glynn

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SURNAME ▶	DPickett:mt	JShapaker	GLainas	RLTedesco		
DATE ▶	4/27/76	4/27/76	4/27/76	4/27/76		